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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

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Office Action Summary	Application No.	Applicant(s)
	10/699,774	SUEHIRO, MASAKO
	Examiner	Art Unit
	Albert H. Cutler	2622

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 18 April 2007.
- 2a) This action is **FINAL**. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-8 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 18 April 2007 is/are: a) accepted or b) objected to by the Examiner. Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a). Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
- 5) Notice of Informal Patent Application
- 6) Other: _____.

DETAILED ACTION

1. This office action is responsive to application 10/699,774 filed on November 4, 2003. Claims 1-8 are pending in the application and have been examined by the examiner.

Response to Arguments

2. Applicant's arguments, see pages 16 and 17 of the Response to Non-Final Office Action, filed April 18, 2007, with respect to the rejection(s) of claim(s) 1-8 under 35 U.S.C. 103(a) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Gennetten et al.(US 2004/0201680). Gennetten et al. disclose a technology of switching a second communication mode (MS mode) of an image sending apparatus (target) to a first communication mode (PTP mode) in accordance with an instruction from an image receiving apparatus (initiator) which receives the instructions from an image sending apparatus. Further explanation is contained in the body of the rejection.

3. Therefore, this Office Action is Non-Final.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

6. Claims 1, and 3-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Camara et al.(US 2002/0178304) in view of Gennetten et al.(US 2004/0201680).

Consider claim 1, Camara et al. teach:

An image sending and receiving system(figures 1 and 2), comprising:
an image sending apparatus("USB Mass Storage Digital Camera", 224, figure 2, paragraph 0027. The camera(224) communicates with the user portion(250) through USB.) which comprises:

an image capturing device which captures an image(The image capturing device is a "USB Mass Storage Digital Camera", 224, figure 2, paragraph 0027);
a recording device which records the captured image on a recording medium(paragraph 0014, The camera here acts as a storage device for the computer(i.e. records captured images on a recording medium) and that recording medium comprises a hard drive, compact disc, etc.)

a first communication device(see figure 2, the camera(224) communicates on one end of a USB interface) which has a first communication mode("Read Info"

paragraph 0049) capable of sending the selected image(Paragraph 0050, The "Read Info" command requests a data transfer from the camera, one type of such data transfers is an "Image".), and a second communication mode("Start Stop Capture" paragraph 0059) for functioning as an external recording device for the external device(Paragraph 0060, The "Start Stop Capture" command requests that the camera capture images(i.e. function as an external recording device). The commands given to the camera cause the camera to implement different modes, as the commands are used for "controlling the MSC device", paragraphs 0028 and 0035. By controlling the camera, the user component(PC, 250) activates different modes in the camera through the use of commands. Camara et al. also teach that operation codes are primarily relevant for the Mode Select command, paragraph 0064.); and

the external device includes an image receiving apparatus("User component", 250, figure 2, paragraph 0027) which comprises:

a second communication device("File system interface", 214, figure 2) which performs at least communication in the first communication mode(Initiated commands are passed through the "file system interface", 214, to the camera through USB. These include Picture Transfer Protocol commands. Paragraphs 0028, 0065-0069) with the image sending apparatus(224);

a recording device which records the image received(Paragraph 0018 details computer readable media and storage media(i.e. recording devices) used by the user component, 250.) through the second communication device(250);

and a mode switch control device(The WIA Wizard and WIA Enabled Applications, 210, figure 2, of the user component(250) control the mode switching of the camera, paragraph 0028) which controls a switch between the communication modes(The user component(250) acts as a mode switch control device by using commands to change between modes of the camera(224), paragraph 0040. A list of the different commands, which activate different modes, is shown in the chart between paragraphs 0032 and 0033, and these modes are detailed in subsequent paragraphs 0036-0063) of the image sending apparatus(224).

However, Camara et al. do not explicitly teach that the image sending apparatus comprises an image selecting device which selects a desired image of images recorded on the recording medium, or that the first communication device sends an image capturing command to the external device. Camara et al. further do not explicitly teach of a transfer instruction device, or an automatic mode switching device in the image capturing apparatus. Furthermore, Camara et al. do not explicitly teach that the mode switch control device sends a conversion command to the change the communication mode to the first communication mode in order to transfer images.

Gennetten et al. is similar to Camara et al. in that Gennetten et al. teach of a camera(1, figures 1a-1c) connected to an external device(3, 4). Gennetten et al. is further similar in that images are transferred from the camera to the external device according to a user request(paragraphs 0023, 0026-0027, 0033). Gennetten et al. is likewise similar to Camara et al. in that the camera is connected to the external device via USB(paragraphs 0030 and 0042).

However, in addition to the teachings of Camara et al., Gennetten et al. teach that the camera comprises an image selecting device which selects a desired image of images recorded on the recording medium(A four-way button(6) allows a user to select a desired image, paragraph 0033.), and that the first communication device sends an image capturing command to the external device(The connection of the camera to the external device allows the camera to act as a user interface(UI) for the external device, paragraphs 0023-0025. The external device captures images by printing them or storing them, paragraph 0026.). Gennetten et al. further teach a transfer instruction device which outputs a transfer instruction for transferring the image selected by the image selecting device to the external device(The camera can “move”, print, or store images in the external device, paragraph 0025, 0026 and 0028. Existing buttons on the camera, as well as a touch-screen can be used to select and transfer images, paragraph 0033.), and an automatic mode switching device which automatically switches between the first communication mode and the second communication mode in the first communication device(The camera is automatically switched between a regular camera mode(i.e. second communication mode) and a picture transfer mode(i.e. first communication mode) as the external device “hijacks” the user interface of the camera when connected, paragraphs 0027 and 0030.).

Furthermore, Gennetten et al. teach that on checking that there has been the transfer instruction of the image from the transfer instruction device(The transfer instruction is two-fold. The first part of the instruction preps the camera for image transfer when the camera is connected to the external device, paragraphs 0027, 0028,

0030, 0033. The second part of the transfer instruction involves selecting which images to transfer, paragraphs 0026 and 0033.), the mode switch control device of the image receiving apparatus determines whether or not the communication mode with the image sending apparatus is the first communication mode, and sends a conversion command for ordering change to the first communication mode if determined that a current communication mode of the image sending apparatus is not the first communication mode, and that on receiving the conversion command from the image receiving apparatus, the automatic mode switching device of the image sending apparatus switches the communication mode of the first communication device to the first communication mode(See paragraphs 0027 and 0030. "The dock enables the device to 'hijack' the UI of the digital camera such that the camera undergoes a change in mode from functioning as a digital camera to functioning as a UI for the device". "When the camera is docked, an electrical connection is formed between the camera and the device. This electrical connection initiates the mode change within the camera from normal camera functions to functioning as the UI of the device the camera is docked to". Basically, the camera is connected to the external device, the external device determines that the camera is in a regular camera mode(i.e. second communication mode), and switches the communication mode of the camera to a first communication mode in which images can be selected and transferred.).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time of the invention to include an image selecting device, automatic mode-switching device, and transfer instruction device, as well as automatically switch the

mode of the camera to an image transfer mode upon reception of an image transfer instruction as taught by Gennetten et al. in the image sending and receiving system as taught by Camara et al. for the benefit of providing a quick, easy, and convenient way of unloading and printing photos in which someone with little computer knowledge can still perform the required functions.

Consider claim 3, and as applied to claim 1 above, Camara et al. do not explicitly teach of an automatic mode switching device. However, Gennetten et al. teach of an automatic mode switching device(See claim 1 rationale).

Furthermore, Gennetten et al. teach that the automatic mode switching device of the image sending apparatus switches the communication mode of the first communication device to the second communication mode in a case where an initial communication mode was the second communication mode and a current communication mode is the first communication mode and it is in a non-connected state after connecting to the external device(See paragraph 0025. After undocking(i.e. switching to a non-connected state) the camera immediately reverts to its normal camera behavior, which corresponds to the image capturing second communication mode.).

Consider claim 4, and as applied to claim 1 above, Camara et al. further teach that the first communication mode("Read Info") is PTP mode(Camara et al. teach that the device operates using Picture Transfer Protocol (PTP) commands, paragraphs

0028, 0065-0069.), and the second communication mode("Start Stop Capture") is a mass storage mode(The "Start Stop Capture" mode constitutes mass storage mode because the camera used is a mass storage camera, paragraph 0028. The camera can also capture a single image at a time, or initiate and terminate open capture, in which a plurality of images are captured, paragraphs 0059-0060.).

Consider claim 5, and as applied to claim 1 above, Camara et al. further teach that the image sending apparatus is a digital camera(Mass Storage Class Digital Camera, 224, figure 2, paragraph 0027).

Consider claim 6, and as applied to claim 1 above, Camara et al. further teaches that the image receiving apparatus is a personal computer("PC", 250, figure 2, paragraph 0027).

Consider claim 7, Camara et al. teach:
an image sending apparatus("USB Mass Storage Digital Camera", 224, figure 2, paragraph 0027. The camera(224) communicates with the user portion(250) through USB.) which comprises:
an image capturing device which captures an image(The image capturing device is a "USB Mass Storage Digital Camera", 224, figure 2, paragraph 0027);
a recording device which records the captured image on a recording medium(paragraph 0014, The camera here acts as a storage device for the

computer(i.e. records captured images on a recording medium) and that recording medium comprises a hard drive, compact disc, etc.)

a communication device(see figure 2, the camera(224) communicates on one end of a USB interface) which has a first communication mode("Read Info" paragraph 0049) capable of sending the selected image(Paragraph 0050, The "Read Info" command requests a data transfer from the camera, one type of such data transfers is an "Image".), and a second communication mode("Start Stop Capture" paragraph 0059) for functioning as an external recording device for the external device(Paragraph 0060, The "Start Stop Capture" command requests that the camera capture images(i.e. function as an external recording device).).

However, Camara et al. do not explicitly teach that the image sending apparatus comprises an image selecting device which selects a desired image of images recorded on the recording medium, or that the first communication device sends an image capturing command to the external device. Camara et al. further do not explicitly teach of a transfer instruction device, or an automatic mode switching device in the image capturing apparatus. Furthermore, Camara et al. do not explicitly teach that the automatic mode switching device switches the communication mode to the first communication mode after receiving a conversion command.

Gennetten et al. is similar to Camara et al. in that Gennetten et al. teach of a camera(1, figures 1a-1c) connected to an external device(3, 4). Gennetten et al. is further similar in that images are transferred from the camera to the external device according to a user request(paragraphs 0023, 0026-0027, 0033). Gennetten et al. is

likewise similar to Camara et al. in that the camera is connected to the external device via USB(paragraphs 0030 and 0042).

However, in addition to the teachings of Camara et al., Gennetten et al. teach that the camera comprises an image selecting device which selects a desired image of images recorded on the recording medium(A four-way button(6) allows a user to select a desired image, paragraph 0033.), and that the first communication device sends an image capturing command to the external device(The connection of the camera to the external device allows the camera to act as a user interface(UI) for the external device, paragraphs 0023-0025. The external device captures images by printing them or storing them, paragraph 0026.). Gennetten et al. further teach a transfer instruction device which outputs a transfer instruction for transferring the image selected by the image selecting device to the external device(The camera can “move”, print, or store images in the external device, paragraph 0025, 0026 and 0028. Existing buttons on the camera, as well as a touch-screen can be used to select and transfer images, paragraph 0033.), and an automatic mode switching device which automatically switches between the first communication mode and the second communication mode in the first communication device(The camera is automatically switched between a regular camera mode(i.e. second communication mode) and a picture transfer mode(i.e. first communication mode) as the external device “hijacks” the user interface of the camera when connected, paragraphs 0027 and 0030.).

Furthermore, Gennetten et al. teach that on receiving a conversion command from the external device, the automatic mode switching device of the image sending

apparatus switches the communication mode of the first communication device to the first communication mode(See paragraphs 0027 and 0030: "The dock enables the device to 'hijack' the UI of the digital camera such that the camera undergoes a change in mode from functioning as a digital camera to functioning as a UI for the device". "When the camera is docked, an electrical connection is formed between the camera and the device. This electrical connection initiates the mode change within the camera from normal camera functions to functioning as the UI of the device the camera is docked to". Basically, the camera is connected to the external device, the external device determines that the camera is in a regular camera mode(i.e. second communication mode), and switches the communication mode of the camera to a first communication mode in which images can be selected and transferred.).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time of the invention to include an image selecting device, automatic mode-switching device, and transfer instruction device, as well as automatically switch the mode of the camera to an image transfer mode upon reception of an image transfer instruction as taught by Gennetten et al. in the image sending apparatus as taught by Camara et al. for the benefit of providing a quick, easy, and convenient way of unloading and printing photos in which someone with little computer knowledge can still perform the required functions.

Consider claim 8, Camara et al. teach:

An image receiving apparatus("User component", 250, figure 2, paragraph 0027) comprising:

a communication device("File system interface", 214, figure 2) which has a first communication mode capable of capturing an image(Initiated commands are passed through the "file system interface", 214, to the camera through USB. These include Picture Transfer Protocol commands. Paragraph 0028) from an image sending apparatus(224);

a recording device which records the image received(Paragraph 0018 details computer readable media and storage media(i.e. recording devices) used by the user component, 250.) through the communication device(250); and

a mode switch control device(The WIA Wizard and WIA Enabled Applications, 210, figure 2, of the user component(250) control the mode switching of the camera, paragraph 0028) which switches communication modes of the image sending apparatus(The user component(250) acts as a mode switch control device by using commands to change between modes of the camera(224), paragraph 0040. A list of the different commands(i.e. modes) is shown in the chart between paragraphs 0032 and 0033, and these modes are detailed in subsequent paragraphs 0036-0063) of the image sending apparatus(224), wherein:

the mode switch control device(210) of the image receiving apparatus(250) determines whether or not the communication mode with the image sending apparatus is the first communication mode(One of the commands is a "Test Unit Ready" command, paragraphs 0036-0037, which determines if the test unit is ready(i.e. in the

correct communication mode)), and sends a conversion command for ordering change to the first communication mode if determined that a current communication mode of the image sending apparatus is not the first communication mode(The mode switch control device can send a “Read Info” command to change to the first communication mode(paragraph 0049). It can also send a “Reset” command to reset the camera to a default state(paragraph 0062).).

However, Camara et al. do not explicitly teach of receiving from an image sending apparatus an image capturing command of a desired image of images recorded on a recording medium in the image sending apparatus. Camara et al. also do not explicitly teach of on receiving an image transfer instruction, sending a conversion command to the change the communication mode to the first communication mode in order to transfer images.

Gennetten et al. is similar to Camara et al. in that Gennetten et al. teach of a camera(1, figures 1a-1c) connected to an external device(3, 4). Gennetten et al. is further similar in that images are transferred from the camera to the external device according to a user request(paragraphs 0023, 0026-0027, 0033). Gennetten et al. is likewise similar to Camara et al. in that the camera is connected to the external device via USB(paragraphs 0030 and 0042).

However, in addition to the teachings of Camara et al., Gennetten et al. teach of receiving from an image sending apparatus an image capturing command of a desired image of images recorded on a recording medium in the image sending apparatus(The connection of the camera to the external device allows the camera to act as a user

interface(UI) for the external device, paragraphs 0023-0025. The external device captures images by printing them or storing them, paragraph 0026.).

Furthermore, Gennetten et al. teach that on checking that there has been the transfer instruction of the image from the image sending apparatus through the communication device(The transfer instruction is two-fold. The first part of the instruction preps the camera for image transfer when the camera is connected to the external device, paragraphs 0027, 0028, 0030, 0033. The second part of the transfer instruction involves selecting which images to transfer, paragraphs 0026 and 0033.), the mode switch control device determines whether or not the communication mode with the image sending apparatus is the first communication mode, and sends a conversion command for ordering change to the first communication mode if determined that a current communication mode of the image sending apparatus is not the first communication mode(See paragraphs 0027 and 0030. "The dock enables the device to 'hijack' the UI of the digital camera such that the camera undergoes a change in mode from functioning as a digital camera to functioning as a UI for the device". "When the camera is docked, an electrical connection is formed between the camera and the device. This electrical connection initiates the mode change within the camera from normal camera functions to functioning as the UI of the device the camera is docked to". Basically, the camera is connected to the external device, the external device determines that the camera is in a regular camera mode(i.e. second communication mode), and switches the communication mode of the camera to a first communication mode in which images can be selected and transferred.).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time of the invention to have the external device receive an image capturing command from an image sending apparatus, and change the mode of the image sending apparatus to a first communication mode as taught by Gennetten et al. in the image receiving apparatus as taught by Camara et al. for the benefit of providing a quick, easy, and convenient way of unloading and printing photos in which someone with little computer knowledge can still perform the required functions.

7. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Camara et al. in view of Gennetten et al. as applied to claim 1 above; and further in view of Takahashi(US 6,867,882).

Consider claim 2, and as applied to claim 1 above the combination of Camara et al. and Gennetten et al. does not explicitly teach that the mode switching device of the image sending apparatus is a manual mode switching device.

Like Camara et al., Takahashi teaches of an image inputting apparatus(101, figure 1) that communicates with an external device(information processing apparatus,102, figure 1). The devices of Camara et al. communicate through communication units 111, 118, and 120. Also like Camara et al., the image inputting apparatus(101) of Takahashi senses images and stores them in memory when provided with an external instruction to do so(column 4, lines 10-29). In figure 2, column 5, line 56 through column 6, line 24, Takashi illustrates the image inputting apparatus(camera,

101) more clearly. Like Gennetten et al., Takahashi teaches of an image selecting device(204, 205, figure 2), and that the external device can be a printer(103, figure 1).

However, in addition to the combined teachings of Camara et al. and Gennetten et al., Takahashi teaches that the image sensing apparatus(101) further comprises a manual mode switching device("mode setting dial", 202, figure 2, column 5, lines 56-60) which switches between the first communication mode("image sensing mode") and the second communication mode("print mode").

The mode switching by the automatic mode switching device of Gennetten et al.(see claim 1) would take preference over the mode switching by the manual mode switching device(202) of Takahashi because the user interface of the camera disclosed by Gennetten et al., which user interface would include the mode setting dial, is "hijacked" by the external device when the camera is connected to the external device, and the mode of the camera is automatically changed(see claim 1 rationale, paragraphs 0027 and 0030.).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time of the invention to use the manual mode switching device as taught by Takahashi in the image capturing device taught by the combination of Camara et al. and Gennetten et al. because it is difficult for someone who is unaccustomed with a computer to perform image printing operations, and manual mode switching device provides the benefit of allowing a user to perform the print operation easily without interaction with a computer(Takahashi, column 1, lines 35-44).

Conclusion

8. In view of Applicant's response, any objections made to the specification, drawings and claims are hereby withdrawn.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Albert H. Cutler whose telephone number is (571)-270-1460. The examiner can normally be reached on Mon-Fri (7:30-5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ngoc-Yen Vu can be reached on (571)-272-7320. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

AC



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SUPERVISORY PATENT EXAMINER